CALIFORNIA ~~STATE~~ BOARD OF HEALTH.

MONTHLY BULLETIN.

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NOTICE TO COUNTY RECORDERS.

Registration of Marriages.—The attention of County Recorders is directed to the statistics on Increase of Marriages in this month's Bulletin. If the decreases or small increases shown for some counties are due to incomplete registration, the Recorders concerned must exert themselves to compel ministers and justices to properly register all marriages performed by them. Recorders can readily keep track of these matters by co-operating with the County Clerks who issue the necessary marriage licenses.

DEPARTMENT OF VITAL STATISTICS.

GEORGE D. LESLIE, STATISTICIAN.

INCREASE OF MARRIAGES: 1906 TO 1907.

Summary.—The marriages registered in California totaled 23,005 for 1907 against 21,317 for 1906, a gain of 1,688, or 7.9 per cent.

The per cent of increase was 9.7 for Northern California and 7.0 for Central California, or 7.4 for both together, against 9.2 for Southern California.

The high rate of gain for San Francisco, 17.5 per cent, in contrast with a slight decrease for the transbay counties, indicates the return of population to the peninsula.

Other high rates of gain were 12.4 per cent for the counties south of Tehachapi except Los Angeles, and 11.6 for the coast counties of Northern California.

Of the individual counties, thirty-eight showed increases in marriages, one no change, and eighteen showed slight decreases.

Marriages increased by at least one-fifth, 20.0 per cent, in the following eleven counties: Inyo, Tehama, Kern, Butte, Napa, Calaveras, Mono, Orange, Madera, Humboldt, and Kings.

The increases were also above the State average, 7.9 per cent, in fourteen other counties, as follows: San Francisco, Yuba, Santa Barbara, Modoc, Fresno, Sacramento, San Bernardino, Monterey, Tulare, Nevada, Glenn, Santa Cruz, Mendocino, and San Diego.

Comparison of the ranking of the leading counties in marriages registered shows notable rises in rank for the following counties: Orange, Humboldt, Santa Barbara, Butte, Napa, Kern, Kings, and Tehama.

Geographic Divisions.—Altogether 23,005 marriages were reported by County Recorders to the California State Bureau of Vital Statistics for 1907 as compared with 21,317 for 1906, these being the first calendar years covered by the operations of the present registration law enacted in 1905. The increase of marraiges for 1907 over 1906 was 1,688, a gain of 7.9 per cent.

In the counties north of Tehachapi the marraiges reported for 1907 totaled 15,728 against 14,650 for 1906, an increase of 1,078 or 7.4 per cent. For Southern California the totals were 7,277 in 1907 and 6,667 in 1906, a gain of 610, or 9.2 per cent.

The per cent of increase for San Francisco was no less than 17.5. This high rate of gain indicates that the inhabitants who were driven elsewhere by the great fire in April, 1906, were re-establishing themselves in homes in the new San Francisco throughout 1907. Confirmation appears from the fact that the group of other bay counties, instead of showing the usual increase of marriages, suffered a slight decrease for 1907 as compared with 1906. The net gain for the entire metropolitan area was thus 7.4 per cent, or the same as for the rural counties north of Tehachapi.

In Southern California, Los Angeles shows an increase in marriages of 7.6 per cent, against no less than 12.4 per cent for the surrounding counties.

The rate of gain for Northern California alone was 9.7, being as much as 11.6 for the coast counties and 7.8 for the interior counties. The corresponding rate for Central California alone was 7.0, the per cent of increase for the coast counties other than the metropolitan area being 3.3 and that for the interior counties being 7.9, or the same as for the entire State.

The following table shows the number and per cent of increase in marriages for the several geographic divisions of the State, in 1906 to 1907:

Increase of Marriages, for Geographic Divisions: 1906 to 1907.

Geographic Division.	Marriages.		Increase.	
	1907.	1906.	Number.	Per Cent.
THE STATE	23,005	21,317	1,688	7.9
Northern California	2,278	2,077	201	9.7
Coast counties	1,168	1,047	121	11.6
Interior counties	1,110	1,030	80	7.8
Central California	13,450	12,573	877	7.0
San Francisco	4,158	3,539	619	17.5
Other bay counties	4,169	4,217	48*	1.1*
Coast counties	1,697	1,642	55	3.3
Interior counties	3,426	3,175	251	7.9
Southern California	7,277	6,667	610	9.2
Los Angeles	4,847	4.506	341	7.6
Other counties	2,430	2,161	269	12.4
Northern and Central California	15,728	14,650	1,078	7.4
Coast counties	11,192	10,445	747	7.2
Interior counties	4,536	4,205	331	7.9
Metropolitan area	8,327	7,756	571	7.4
Rural counties	7,401	6,894	507	7.4

*Decrease.

Counties.—The table on the following page gives the increase (or decrease) of marriages for each county, as well as the per cent of increase for those showing gains in 1907 over 1906.

The apparently high rate of gain shown for Inyo County is due only to the fact that complete returns for 1907 are contrasted with incomplete ones for 1906.

The per cents of increase in marriages were highest for the following counties: Tehama, 39.3; Kern, 35.5; Butte, 31.4; Napa, 27.2; Calaveras, 26.8; Mono, 25.0; Orange, 21.8; Madera, 20.4; Humboldt, 20.3; Kings, 20.0; San Francisco, 17.5; Yuba, 17.1; Santa Barbara, 16.1; Modoc, 15.2; Fresno, 14.8; Sacramento, 13.9; San Bernardino, 13.4; Monterey and Tulare, each 12.6; Nevada, 12.5; Glenn, 11.1; Santa Cruz, 10.4; Mendocino, 8.5; and San Diego, 8.1. Each of these twenty-four counties shows a rate of gain above the average rate for the State, 7.9 per cent.

There were also increases in marriages, but at rates below the State average, in the following thirteen counties arranged in descending order: Los Angeles, 7.6; San Luis Obispo, 6.0; Sonoma, 4.7; Riverside, 4.2; Stanislaus, 4.0; Tuolumne, 3.3; Ventura, 3.1; Lake, 3.0; Placer, 2.3; Contra Costa and San Mateo, each 2.0; Merced, 1.3; and Santa Clara, 0.5. For Plumas County exactly the same number of marriages were reported in 1907 as in 1906.

There were decreases in marriages for 1907 as compared with 1906 in the following eighteen counties arranged alphabetically: Alameda, Alpine, Amador, Colusa, Del Norte, El Dorado, Lassen, Marin, Mariposa, San Benito, San Joaquin, Shasta, Sierra, Siskiyou, Solano, Sutter, Trinity, and Yolo. In most of these cases, however, the decreases were only slight.

Increase of Marriages, for Counties: 1906 to 1907.

County.	Marriages.		Increase.	Decrease.	Per Cent of Increase.
	1907.	1906.			
CALIFORNIA	23,005	21,317	1,688		7.9
Alameda	3,009	3,019		10	
Alpine		1		1	
Amador	66	74		8	
Butte	222	169	53		31.4
Calaveras	52	41	11		26.8
Colusa	34	38		4	
Contra Costa	200	196	4		2.0
Del Norte	8	12		4	
El Dorado	45	48		3	
Fresno	630	549	81		14.8
Glenn	40	36	4		11.1
Humboldt	320	266	54		20.3
Inyo	40	13	27		207.7
Kern	206	152	54		35.5
Kings	144	120	24		20.0
Lake	34	33	1		3.0
Lassen	27	33		6	
Los Angeles	4,847	4,506	341		7.6
Madera	59	49	10		20.4
Marin	703	750		47	
Mariposa	15	17		2	
Mendocino	191	176	15		8.5
Merced	81	80	1		1.3
Modoc	38	33	5		15.2
Mono	5	4	1		25.0
Monterey	196	174	22		12.6
Napa	206	162	44		27.2
Nevada	117	104	13		12.5
Orange	638	524	114		21.8
Placer	90	88	2		2.3
Plumas	21	21			
Riverside	299	287	12		4.2
Sacramento	950	834	116		13.9
San Benito	47	58		11	
San Bernardino	458	404	54		13.4
San Diego	628*	581	47		8.1
San Francisco	4,158	3,539	619		17.5
San Joaquin	470	520		50	
San Luis Obispo	196	185	11		6.0
San Mateo	257	252	5		2.0
Santa Barbara	274	236	38		16.1
Santa Clara	961	956	5		0.5
Santa Cruz	297	269	28		10.4
Shasta	144	161		17	
Sierra	8	16		8	
Siskiyou	120	127		7	
Solano	154	186		32	
Sonoma	398	380	18		4.7
Stanislaus	104	100	4		4.0
Sutter	29	33		4	
Tehama	124	89	35		39.3
Trinity	11	18		7	
Tulare	250	222	28		12.6
Tuolumne	62	60	2		3.3
Ventura	133	129	4		3.1
Yolo	93	105		12	
Yuba	96	82	14		17.1

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*Includes 5 marriages in Imperial County, formed August 15, 1907.

County Totals.—The following table shows the counties for which at least 100 marriages were reported to the State Bureau of Vital Statistics in 1907 and 1906, respectively:

Rank of Counties with at Least 100 Marriages: 1907 and 1906.

1907.			1906.		
Rank.	County.	Marriages.	Rank.	County.	Marriages.
	THE STATE	23,005		THE STATE	21,317
1.	Los Angeles	4,847	1.	Los Angeles	4,506
2.	San Francisco	4,158	2.	San Francisco	3,539
3.	Alameda	3,009	3.	Alameda	3,019
4.	Santa Clara	961	4.	Santa Clara	956
5.	Sacramento	950	5.	Sacramento	834
6.	Marin	703	6.	Marin	750
7.	Orange	638	7.	San Diego	581
8.	Fresno	630	8.	Fresno	549
9.	San Diego	* 628	9.	Orange	524
10.	San Joaquin	470	10.	San Joaquin	520
11.	San Bernardino	458	11.	San Bernardino	404
12.	Sonoma	398	12.	Sonoma	380
13.	Humboldt	320	13.	Riverside	287
14.	Riverside	299	14.	Santa Cruz	269
15.	Santa Cruz	297	15.	Humboldt	266
16.	Santa Barbara	274	16.	San Mateo	252
17.	San Mateo	257	17.	Santa Barbara	236
18.	Tulare	250	18.	Tulare	222
19.	Butte	222	19.	Contra Costa	196
20.	Kern	206	20.	Solano	186
21.	Napa	206	21.	San Luis Obispo	185
22.	Contra Costa	200	22.	Mendocino	176
23.	Monterey	196	23.	Monterey	174
24.	San Luis Obispo	196	24.	Butte	169
25.	Mendocino	191	25.	Napa	162
26.	Solano	154	26.	Shasta	161
27.	Kings	144	27.	Kern	152
28.	Shasta	144	28.	Ventura	129
29.	Ventura	133	29.	Siskiyou	127
30.	Tehama	124	30.	Kings	120
31.	Siskiyou	120	31.	Yolo	105
32.	Nevada	117	32.	Nevada	104
33.	Stanislaus	104	33.	Stanislaus	100
	Remaining 24 counties	1,001		Remaining 24 counties	977

* Includes 5 marriages in Imperial County, formed August 15, 1907.

Each year there were thirty-three counties with at least 100 marriages, Tehama replacing Yolo in the list in 1907. While there were only eighteen counties reporting 200 marriages for 1906, there were twenty-two reporting this number for 1907, the additional counties being Butte, Kern, Napa, and Contra Costa.

Comparison of the ranking of these leading counties in the number of marriages registered shows notable gains in certain cases. Thus, Orange County rose from ninth place to seventh, passing San Diego and Fresno, while Humboldt rose from fifteenth to thirteenth, passing Riverside and Santa Cruz. Santa Barbara displaced San Mateo in sixteenth place in the ranking. Butte rose from twenty-fourth place to nineteenth, passing Contra Costa, Solano, San Luis Obispo, Mendocino, and Monterey; Napa rose from twenty-fifth place to twenty-first, passing these same counties; and Kern rose from twenty-seventh place to twentieth, passing these counties and Shasta besides. Likewise, Kings rose from thirtieth place to twenty-seventh, passing Ventura and Siskiyou. Finally, Tehama rose from below thirty-third place to thirtieth, passing Siskiyou, Yolo, Nevada, and Stanislaus.

VITAL STATISTICS FOR MARCH.

Births.—For March there were reported 2,135 living births, as compared with 2,021 for February. For an estimated State population of 2,019,519 the March total represents an annual birth-rate of 12.5 against 12.6 for February.

The March totals, as reported to the State Bureau of Vital Statistics, were highest for the following counties: Los Angeles, 579; Alameda, 314; San Francisco, 296; Santa Clara, 100; Fresno, 61; San Diego, 58; and Sacramento and San Bernardino, each 51.

Births, so far as registered in the leading freeholders' charter cities for March, were as follows: Los Angeles, 388; San Francisco, 296; Oakland, 150; Alameda, 58; Berkeley, 52; Pasadena, 40; Sacramento, 36; San Diego, 33; Fresno, 31; San José, 29; and Eureka, 26.

Marriages.—The marriages reported for March number 1,470 against 1,532 for February, and represent an annual rate of only 8.6, as compared with 9.6 for the preceding month.

The March totals were greatest for the following counties: Los Angeles, 313; San Francisco, 294; Alameda, 185; Santa Clara, 70; Sacramento, 59; and Fresno, 50.

Deaths.—Altogether 2,866 deaths, exclusive of stillbirths, were reported for March, against 2,759 for February. The annual death-rate for March is 16.8, as compared with 17.2 for February.

The March death totals were highest for the following counties: San Francisco, 607; Los Angeles, 546; Alameda, 308; San Diego, 106; San Joaquin, 101; Sacramento, 98; Santa Clara, 92; Fresno, 82; and San Bernardino, 73.

Deaths for March were reported as follows for the principal cities: San Francisco, 607; Los Angeles, 356; Oakland, 149; San Diego, 89; Sacramento, 61; Stockton, 52; Pasadena, 44; Berkeley, 42; San José, 35; and Alameda and Fresno, each 31.

Causes of Death.—In March there were altogether 463 deaths, or 16.2 per cent of all, from various forms of tuberculosis; 442, or 15.4 per cent, from diseases of the circulatory system; and 366, or 12.8 per cent, from pneumonia and other diseases of the respiratory system. As compared with February, March showed an increase in the proportion of deaths from heart disease and a decrease in the proportion for pneumonia.

Other notable causes of death in March were violence, diseases of the nervous system, diseases of the digestive system, Bright's disease, epidemic diseases, and cancer.

As in recent months, diphtheria and croup led typhoid fever with 39 deaths for the former against 35 for the latter. March deaths from other epidemic diseases were as follows: Influenza, 27; measles, 17; whooping cough, 13; malarial fever and scarlet fever, each 5; and scattering, 11.

Further details appear in the following table, which gives the number of deaths from certain principal causes reported for March, as well as the proportions from each cause per 1,000 total deaths for both March and February:

Cause of Death.	Deaths: March.	Proportion per 1,000.	
		March.	February.
ALL CAUSES	2,866	1,000.0	1,000.0
Typhoid fever	35	12.2	10.5
Malarial fever	5	1.7	0.7
Smallpox	1	0.3	0.7
Measles	17	5.9	2.9
Scarlet fever	5	1.7	2.5
Whooping-cough	13	4.5	4.7
Diphtheria and croup	39	13.6	16.0
Influenza	27	9.4	11.2
Plague	------	------	0.4
Other epidemic diseases	10	3.5	2.9
Tuberculosis of lungs	384	134.0	135.5
Tuberculosis of other organs	79	27.6	14.5
Cancer	143	49.9	55.1
Other general diseases	114	39.8	34.8
Meningitis	65	22.7	24.3
Other diseases of nervous system	199	69.4	85.2
Diseases of circulatory system	442	154.2	132.6
Pneumonia and broncho-pneumonia	286	99.8	109.8
Other diseases of respiratory system	80	27.9	37.0
Diarrhea and enteritis, under 2 years	42	14.7	10.5
Diarrhea and enteritis, 2 years and over	16	5.6	6.2
Other diseases of digestive system	131	45.7	50.7
Bright's disease and nephritis	173	60.4	54.4
Childbirth	35	12.2	10.2
Diseases of early infancy	77	26.9	29.7
Suicide	71	24.8	27.2
Other violence	206	71.9	75.8
All other causes	171	59.7	54.0

Geographic Divisions.—The table below shows the number of deaths from main classes of diseases reported for March for the several geographic divisions of the State, including the metropolitan area, or "Greater San Francisco," in contrast with the rural counties north of Tehachapi:

Geographic Division.	DEATHS: MARCH.									
	All Causes	Epidemic Diseases	Tuberculosis (All Forms)	Cancer	Diseases of Nervous System	Diseases of Circulatory System	Diseases of Respiratory System	Diseases of Digestive System	Violence	All Other Causes
THE STATE	2,866	152	463	143	264	442	366	189	277	570
Northern California	375	20	40	19	41	56	51	28	44	76
Coast counties	159	4	20	6	21	26	19	15	13	35
Interior counties	216	16	20	13	20	30	32	13	31	41
Central California	1,639	88	237	82	146	272	214	103	158	339
San Francisco	607	27	82	29	47	130	79	45	64	104
Other bay counties	401	16	57	21	40	60	53	22	38	94
Coast counties	183	15	26	7	16	30	21	12	16	40
Interior counties	448	30	72	25	43	52	61	24	40	101
Southern California	852	44	186	42	77	114	101	58	75	155
Los Angeles	546	24	112	28	43	84	58	41	52	104
Other counties	306	20	74	14	34	30	43	17	23	51
Northern and Central California	2,014	108	277	101	187	328	265	131	202	415
Metropolitan area	1,008	43	139	50	87	190	132	67	102	198
Rural counties	1,006	65	138	51	100	138	133	64	100	217

DEPARTMENT OF BACTERIOLOGY.

DR. A. R. WARD, DIRECTOR.

NOTES ON DIPHTHERIA.

In the face of threatened diphtheria epidemics it is the general practice to close the schools as a precautionary measure. This is too often done without a careful investigation of the real source of the trouble. The following account of a small epidemic that has come to our attention during the past year serves well to illustrate the value of getting at the source of infection in an epidemic and the futility of blindly closing the schools.

Diphtheria was apparently introduced into the town in question by a visitor who had recently recovered from the disease elsewhere. One case was reported on November 14th shortly after the arrival of the visitor in the family. No more cases were reported for six weeks.

From December 25, 1907, until January 25, 1908, cases were reported in fifteen families. Six of these families consumed milk from the R——— Dairy. One family of these six families was reported on December 25th and the other five were reported during the five days, January 15th to 20th. Two other families gave a history of probable spread from the families on the milk route in question. Seven infected families in town gave no history of connection with the milk route.

The suspicions of the health officer were directed against the dairy by the number of infected families who were among its patrons and by the fact that few families consuming the milk escaped. A considerable portion of the milk was used by two cheap restaurants and if any cases were contracted from the milk in these establishments, it was not possible to trace them.

The only people handling the milk were a man, his wife and daughter. Cultures were made from the nose and throat of each one. The mother and daughter gave positive cultures from the throat, while the man gave negative results. Bacilli persisted in the throat of the woman for three weeks in spite of constant effort to clear up the infection. No history of previous clinical diphtheria could be established nor were clinical manifestations recognizable. The fact that the woman frequently milked the cows and delivered the milk, is of interest. Upon the discovery of the bacillus carriers at the dairy, the local authorities took measures to prevent any further contamination of the milk.

Almost at the first appearance of diphtheria in the town the schools had been closed in spite of the fact that there was no evidence pointing to their being a source of infection. The cases in town were either adults, children not attending school, or were among those attributable to the milk route.

The facts seemed to justify the opening of the school for those children who would pass an examination of the nose and throat for diphtheria bacilli. The examination of all children, several hundred, present on the first day that the schools were open, showed only about 4 per cent harboring diphtheria bacilli. This percentage of bacillus carriers confirmed the conclusion that the school children were not primarily involved in the epidemic, for a normal community in the absence of a diphtheria epidemic will give a similar or very slightly lower percentage. Later in an uncontrolled epidemic, the percentage will rise to 15 or more and the exclusion of so large a number of children seriously demoralizes school work. Throughout the period that the school was under surveillance, many of the children who were refused admission because they showed diphtheria bacilli were found to come from families that had previously had cases of diphtheria.

By means of this bacteriological control of attendance, the schools were kept open with perfect safety to the children attending, in the face of conditions that had led the local health authorities to feel it necessary to close them. The experience confirms our feeling that bacteriological examination of children kept in schools is a much safer means of preventing an epidemic than the practice of closing schools. A wholesale examination will reveal the bacillus carriers in most cases and make it possible to subject them to proper restraint and treatment. The fact that this class of mild cases is responsible for the spread of diphtheria is now well recognized. Closing the schools merely sends these bacillus carriers and mild, unrecognized cases out to convey infection wherever they chance to come in contact with susceptible children. This wholesale sort of examination of people concerned in an epidemic seems a very satisfactory way of finding and isolating the source of the trouble, and of stopping the epidemic with a minimum of inconvenience and loss of time to those who are not infected.

DEPARTMENT OF PURE FOODS AND DRUGS.

PROF. M. E. JAFFA, DIRECTOR.

FOOD AND DRUG INSPECTION.

It has previously been stated that the State Board of Health would adopt, as far as possible, an educational policy in connection with the enforcement of the pure food and drug laws. In this connection, therefore, it is thought advisable to issue what might be termed warnings from time to time, as occasion and circumstances warrant. The need of such a warning has been emphasized during the past month in reference to the collection of samples of macaroni, etc., for analysis at the State Laboratory. It would appear, from correspondence received at the Laboratory, that certain manufacturers are acting in ignorance of the necessity of properly labeling their products. This is particularly true in regard to weights. All manufacturers should bear in mind that this point is specifically covered by Subdivision 3, Section 6, of the Pure Food Act, which reads:

Food and liquor shall be deemed mislabeled or misbranded within the meaning of this act in any of the following cases:

* * * * * * * * * * * * * * *

Third. If in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package.

In this connection, Regulation 28, Statement of Weights or Measures, may also be quoted:

A statement of the weight or measure of the food contained in a package is not required. If any such statement is printed, it shall be a plain and correct statement of the average net weight or volume, either on or immediately above or below the principal label, and of the size of letters specified in Regulation 17.

A reasonable variation from the stated weight for individual packages is permissible, provided this variation is as often above as below the weight or volume stated. This variation shall be determined from the changes in the humidity of the atmosphere, from the exposure of the package to evaporation or to absorption of water, and the reasonable variations which attend the filling and weighing or measuring of a package.

In order that the term "package" as used in these acts shall not be misunderstood, it might not be out of place here to quote Section 7:

"The term 'package' as used in this act shall be construed to include any phial, bottle, jar, demijohn, carton, bag, case, can, box, or barrel, or any receptacle, vessel or container of whatsoever material or nature which may be used by a manufacturer, producer, jobber, packer, or dealer, for inclosing any article of food."

Another note of warning is necessary in regard to the labeling of food materials colored with the permitted coal-tar dyes. All such goods should be labeled "artificially colored." At the same time it must be remembered that in the use of these artificial coloring matters, Regulation 11, quoted below, must be strictly observed.

Regulation 11. Coloring, Powdering, Coating, and Staining.

Only harmless colors may be used in food products.

The reduction of a substance to a powder to conceal inferiority in character is prohibited.

The term "powdered" means the application of any powdered substance to the exterior portions of articles of food, or the reduction of a substance to a powder.

The term "coated" means the application of any substance to the exterior portions of a food product.

The term "stain" includes any change produced by the addition of any substance to the exterior portion of foods which in any way alters their natural tint.

In the use of these artificial coloring materials the following excerpts from the Pure Food Act must also be conformed to:

Section 6. Food and liquor shall be deemed mislabeled or misbranded within the meaning of this act in any of the following cases:

* * * * * * * * * * * * * * *

Second. If it be labeled or branded or *colored* so as to deceive or mislead, or tend to deceive or mislead, the purchaser, or if it be falsely labeled in any respect, or if it purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package.

Section 4. Food shall be deemed adulterated within the meaning of this act, in any of the following cases:

* * * * * * * * * * * * * * *

Fourth. If it be mixed, *colored,* powdered, coated or stained in any manner whereby damage or inferiority is concealed.

It might be well again to emphasize to all concerned that none but the permitted colors as declared in Food Inspection Decision No. 76 will be allowed in food products.

Another warning seems to be called for in reference to the labeling of butter. There are some creameries in this State which are making butter from cream gathered at different points in their locality, and labeling that butter as having been made at other and distinct creameries. This practice is in direct violation of Subdivision Fifth, Section 6 of the Pure Food Act, which reads as follows:

Section 6. Food and liquor shall be deemed mislabeled or misbranded within the meaning of this act in any of the following cases:

* * * * * * * * * * * * * * *

Fifth. When any package bears the name of the manufacturers, jobbers or sellers, or the grade or class of the product, it must bear the name of the real manufacturers, jobbers or sellers and the true grade or class of the product, the same to be expressed in clear and distinct English words in legible type, *provided,* that an article of food shall not be deemed misbranded, if it be a well-known food product of a nature, quality and appearance, and so exposed to public inspection as not to deceive or mislead or tend to deceive or mislead a purchaser, and not misbranded and not of the character included within the definitions 1 to 4 of this section.

Regulation 16 is also violated in this connection, the paragraph in question reading: Descriptive matter upon the label shall be free from any statement, design, or device regarding the article or the ingredients or substances contained therein, or quality thereof, or place of origin, which is false or misleading in any particular.

The law is further violated in respect to Regulation 17, Name and Address of Manufacturer, which reads:

The name of the manufacturer or producer, or the place where manufactured, except in the case of mixtures and compounds having a distinctive name, need not be given upon the label; but if given, must be the true name and the true place. The words "packed for————," "distributed by ————," or some equivalent phrase, shall be added to the label in case the name which appears upon the label is not that of the actual manufacturer or producer, or the name of the place not the actual place of manufacture or production.

When a person, firm or corporation actually manufactures or produces an article of food or drug in two or more places, the actual place of manufacture or production of each particular package need not be stated on the label, except when, in the opinion of the Secretary of the State Board of Health, the mention of any such place, to the exclusion of the others, misleads the public.

During the past month two hundred eighty-seven samples of miscellaneous foods and food products have been received at the Laboratory for examination and analysis, making a total of six hundred thirty-eight.

In view of the fact that many inquiries have been received at the Laboratory in regard to the preservation of eggs, the following method, used with success by Dr. Shutt of the Ottawa Experimental Farm, is given:

Experiments in egg preservation were begun at the Experimental Farm, Ottawa, in 1898, and have been continued every season since that date. In the course of these experiments, trials have been made with more than twenty-five different fluids and preparations that have been proposed or sold as egg preservatives. The work of these seven years has shown conclusively the superiority of lime-water over all the preservatives which we have tested.

THE PREPARATION OF LIME-WATER.

The solubility of lime at ordinary temperature is 1 part in 700 parts of water. Such a solution would be termed saturated lime-water. Translated into pounds and gallons, this means 1 lb. of lime is sufficient to saturate 70 gallons of water. However, owing to impurities in commercial lime, it is well to use more than is called for in this statement. It may not, however, be necessary, if good, freshly burnt quicklime can be obtained, to employ as much as was first recommended, namely, 2 to 3 lbs. to 5 gallons of water. With such lime as is here referred to, one could rest assured that 1 lb. to 5 gallons (50 lbs.) would be ample, and that the resulting lime-water would be thoroughly saturated. The method of preparation is simply to slake the lime with a small quantity of water and then stir the milk of lime so formed into 5 gallons of water. After this mixture has been well stirred for a few hours it is allowed to settle. The supernatant liquid, which is now "saturated" lime-water, is drawn off and poured over the eggs, previously placed in a crock or water-tight barrel.

As exposure to the air tends to precipitate the lime (as carbonate), and thus to weaken the solution, the vessel containing the eggs should be kept covered. The air may be excluded by a covering of sweet oil, or by sacking upon which a paste of lime is spread. If after a time there is any noticeable precipitation of the lime, the lime-water should be drawn or siphoned off and replaced with a further quantity newly prepared.

GENERAL PRECAUTIONS NECESSARY TO TAKE.

It is essential that attention be paid to the following points:

1.—That only perfectly fresh eggs be used. No eggs more than four days old should be used.

2.—That the eggs throughout the whole period of preservation should be completely immersed.

Although not necessary to the preservation of the eggs in a sound condition, a temperature of 40° F. will no doubt materially assist towards retaining good flavor, or rather in arresting that "stale" flavor so often characteristic of packed eggs.

Respecting the addition of salt, it must be stated that our experiments—conducted now throughout five seasons—do not show any benefit to be derived therefrom; indeed, salt frequently imparts a limy flavor to the eggs, probably by inducing an interchange of the fluids within and without the egg. Our advice is, do not add any salt to the lime-water.

WATER-GLASS AS A PRESERVATIVE.

Water-glass (sodium silicate) has been extensively experimented with, using solutions varying from two to ten per cent. On the whole, solutions 2 to 5 per cent (two pounds to five pounds sodium silicate in ten gallons of water) have given better results than stronger solutions. Although in the main the results have been very fairly satisfactory, we are of the opinion that lime-water is superior as a preservative. Further, lime-water is cheaper and pleasanter to use than water-glass solution.

It may be of interest to those who are making up solutions for the preservation of eggs, to know that any solution containing a preservative the use of which is prohibited by the California Pure Food Act of March 11, 1907, will not be allowed.

TYPHOID FEVER AND DRINKING WATER.

It is probably a safe estimate to say that if a thorough investigation were made into the source of water infection in communities in which typhoid fever is abnormally prevalent, two thirds of the cases would trace back to feces-polluted drinking water.

As regards the average run of private wells, it may with equal truth be said that the quality of these could hardly be worse. It is obviously out of the question to make frequent analyses of even a small proportion of such wells. No one who is compelled to slake his thirst from such a well can have any real assurance that he is not at the same time taking into his stomach the germ of typhoid fever. But the risk does not end here. People must use milk as well as water, and very frequently the unsuspecting use them in combination, as when the thrifty dairyman dilutes his too thick milk with a little well water. Even where the dairyman scorns such tricks, he probably uses well water to wash his cans and utensils, and in this manner he may unwittingly convey to his customers the disease-producing typhoid germ.

Even when the typhoid germ is absent, feces-polluted water is generally injurious to health. It may and does contain germs which in the human body can give origin to inflammation, catarrhs and dysenteries.

It is fortunate for the health of rural communities that the source of drinking water is most often a natural spring rather than a dug well. When situated above one hundred yards from the house and barn, country springs are rarely or never polluted. On the other hand, it is almost invariably the case that the average farmyard well is polluted by fecal bacteria. The same condemnation must be visited upon town wells. The typical backyard well is a shallow pit, from fifteen to thirty feet deep. Usually there is no casing and the only protection from surface contamination is a more or less rickety platform, or, as is often the case, merely a square box or top.

In towns, while the wells may be of better construction, the chances are that the soil is more thoroughly permeated with filth. The privies are of necessity close to the wells, and the liability to pollution is proportionately great.

One of the most unfortunate consequences of the private ownership of public water supplies is that all but the well-to-do citizens consider themselves unable to afford the cost of the safe-guarded supply. Thus a town may have a very pure and excellent water supply, and yet the majority of the citizens will continue to drink from sewage-polluted wells.

So absolutely necessary is pure water, and an abundance of it, to the public health, that municipalities should see that citizens are supplied with pure water even before they are supplied with electric lights, macadamized streets, and similar modern conveniences.

Every town of one hundred or more families should secure a public water supply.

When a town has once installed a public water supply of good quality, and the water is offered to consumers at the lowest possible price, all private wells within the region traversed by the public water mains should be condemned and closed up as menaces to the public health.—*Iowa Health Bulletin.*